

Child Welfare IT Managers' Webinar Series: Procurement and Contract Management

“Managing Scope Change versus Scope Creep”

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- Presenters: Joyce Rose, ICF International
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- Coordinator: Welcome and thank you for standing by. At this time all participants are in a listen-only mode until the question and answer session will begin. At that time if you would like to ask a question, press star 1 on your touchtone phone.
- Today's conference is being recorded. If you have any objections you may disconnect at this time.
- Now I would like to turn the meeting over to Ms. Joyce Rose. Thank you and you may begin.
- Joyce Rose: Welcome to the Procurement and Contract Management Webinar series brought to you on behalf of the Health and Human Services Administration for Children and Families Children's Bureau and presented by ICF International.
- I am Joyce Rose your host and moderator for today's Webinar, Managing Scope Change versus Scope Creep.

Changes in funding availability and priority mean that opportunities for in-person discussions and networking among professionals working on agency child welfare IT systems are limited.

As an alternative, the Division of State Systems within the Children's Bureau is offering a series of Webinars supporting information sharing and discussion.

The content of the Webinars is structured so as to appeal to a wide audience participating in an agency's child welfare IT initiative including state and tribal welfare staff.

As I mentioned previously, today's Webinar in the Procurement and Contract Management series is entitled, Managing Scope Change versus Scope Creep, which I think you will find unique and interesting as our guest presenters have a wealth of experience managing their state CWIS initiative.

Please note that our previously intended March Webinar has been or was postponed due to extenuating circumstances, and we are looking forward to rescheduling this Webinar in the near future.

The next scheduled Webinar is in May and is entitled, Preparing to Say Goodbye to Your Vendor.

Attendees are encouraged to participate in our Webinar with questions and comments. All of the participant lines are muted now, but we will open them for the Q&A session at the end of the presentation. However, please be aware that you can submit questions at any time using the GoTo Webinar Chat feature and those will be addressed during the Q&A session.

Should we run out of time we will respond to your question via email. And/or should you have additional questions you may submit those to me at the email address listed on the slide, joyce@kassets.com.

We are very interested in knowing who is attending this Webinar. It is our intent throughout all of the Webinars to make the content applicable and attractive for everyone participating in an agency's child welfare information system effort.

We ask that you self-select one of the five categories listed. My colleague Elizabeth will conduct the poll.

Elizabeth Mertinko: We ask people responding to the poll, we'll just give them a couple of more seconds here to fill in. Go ahead and cast your vote. We'll close it in just another couple of seconds here.

Okay. And it looks like we have 14% state child welfare information systems project managers, an overwhelming majority, 71% are state child welfare information system program policy or technical staff.

We don't have any tribal project managers but we do have 5% tribal welfare - child welfare information program policy or technical staff, and another 10% of our participants today are ACF or Children's Bureau staff personnel or leadership.

Joyce Rose: I am very pleased that we have a large percentage of - combo of program, policy, and/or technical staff because I think the whole interest in scope and scope management and scope creep is really applicable in our challenges in today's large system development.

So excellent. Let's move on and take a quick look at today's agenda.

Elizabeth, if you can catch up our slides please.

Elizabeth Mertinko: They should be caught up. Are we not seeing them?

Joyce Rose: I still have the poll, and now I have Managing Scope, and here's the agenda.
Thank you very much.

Elizabeth Mertinko: Sure.

Joyce Rose: We will do - I will do some introductions of our wonderful guest panelists.
We'll talk about what our objectives are for this Webinar. We're going to establish the context around the whole area of scope.

We're going to talk a little bit about how scope is impacted by an application development methodology or can be impacted. Intermingled will be some discussion between our guest presenters, and we'll finish with an attendee Q&A session. And I really encourage you to ask questions because these folks have been associated with their state SACWIS for quite a few years, so they're highly informative. And then we'll do a little wrap-up session.

So let's start with our introduction of our panel participants. I'm very pleased to welcome Tom Kine, Laurie Johnson, Colleen Mousinho, and Susan Stockwell.

Tom has been employed in the technology industry since 1975 and he has been associated with the Social Services Information System, SSIS which is Minnesota's SACWIS effort since 1993.

He is currently the SSIS Division Director and Minnesota's SACWIS Manager. And although technology changed drastically over the last 35 years, one constant has been the need for smart, dedicated people who can innovate using the tools at hand.

So, Tom says the best thing about Minnesota's SACWIS project is working with people with those qualities.

Laurie Johnson has more than 20 years with child welfare experience. And since 2009 has served as SACWIS Project Director and is responsible for the current Michigan SACWIS implementation which will be going live April 30.

Laurie received the Best of Michigan Government Technology Award for best IT collaboration for the design and implementation of the current New Birth Match Process.

Laurie has presented nationally on best practice SACWIS solutions, the New Birth Match Process for the Department of Health and Human Services, the CDC, and the National Child Abuse Neglect Data Conference on Child Welfare Data Warehouse reporting.

Colleen is the Director of Federal Regulations Data and Policy. She brings 20 plus years of child welfare experience with both the Division of Family and Children Services and Division of Mental Health.

Colleen joined the SACWIS Project in June 2004 where she served as the Project Manager for the State and most recently as the Director until August of 2013.

However the Georgia SHINES remains under her purview as has a new director in place.

Susan Stockwell joined the Pennsylvania Department of Public Welfare as the Director of Systems and Data Management in the Office of Children, Youth, and Families in 1992. Prior to employment with the Commonwealth she was a case worker with Lebanon County Children and Youth Services.

Susan is leading a project to develop a statewide child welfare IT solution for Pennsylvania.

We are so pleased to have these experienced and qualified individuals as our guest presenters and myself, formerly the project rep for the State of Wisconsin SACWIS, retired from state service in 2004. And since that time I have been involved with several ACF Children's Bureau sponsored training events.

So with that introduction let us look at our Webinar objectives. We want to define the differences between scope creep and scope change, identify key strategic areas for planning, monitoring, and managing project scope. Discuss the causes and remedies of project scope creep.

We will learn how an application development methodology may encourage or discourage scope creep. And then we want to, and I really encourage a hearty discussion not only between our presenters but also our attendees who are on the phone.

So with that I am going to turn it over to Laurie.

Laurie Johnson: Thank you Joyce. First I'd like to go through some basic strategy that probably many of you know about and (unintelligible) related. It is how Michigan managed their SACWIS as far as their approach to gathering requirements, planning, and the project monitoring and control piece.

We are currently going live April 30, and so this is a very relevant topic for me to give it current information on. We basically have two buckets of or two cylinders of how we approach this in Michigan, and really it was initially the collecting of requirements and defining the scope.

And then throughout the process, how are we going to, you know, monitor those controls, verify scope with the vendor and that initial acquisition, and then long-term, control that scope throughout the development phase of the project.

One of the key areas that I think of Michigan's success and ability to monitor change controls throughout the development period is that we spent significant planning time and we used our federal liaison on consult and monthly guidance.

This was an invaluable piece throughout the project. We did have monthly calls with our ACF liaison Pete Howe. And throughout the planning process as well as the development and design phases, this was really a critical partnership, and it was also very valuable within our governance to be able to use that information that Pete would provide in kind of a guidance way.

So we developed - there was a template, the advanced planning document, and this is before your, you know, your implementation advanced planning document -- or excuse me -- initial advanced planning document.

This really set course for us. We did a full - during this process we did a full gap and feasibility study, and really that took our old system which is SWIFT, and what we needed for the new system.

Michigan is under a unique situation in a modified settlement agreement. And under court order we were to develop and design and implement a SACWIS within a period of time.

So that stated, the gap and feasibility study was absolutely kind of critical point of us - of our planning.

Within that gap and feasibility we were able to expose 2800 initial requirements that were put into a matrix. Also part of our planning was a cost benefit, and really we took the type of SACWIS'.

Many of you know a transfer system, a lot of our SACWIS' are transfer systems. We compared that to an overall from scratch building and so we went through with a cost benefit of each, given our time, and our level of comfort, and as well as our budget was satisfied by a transfer system.

We then took the gap feasibility cost benefit and we went out with our request for proposal. And really that - when you talk about the collection of requirements and you're going out and giving that information to the potential vendors which are development, design, and implementation vendors, was really important.

One of the things that we found that assisted us in getting the best vendor to meet our requirements was to provide a public-facing procurement library which really is about our old system. And part of that procurement library had our gap and our feasibility study.

So with these 2800 requirements, and this was - largely we leaned on the expertise of our liaison and the experience of understanding what initially could we get done within a period of time.

So all 2800 requirements were mapped into kind of a traceability matrix if you will, and they are all - you know the bones; what you need in a SACWIS system.

And it's very - I mean from the business perspective this was a very high level kind of rapid requirement, initial check is about 2800. We initially probably could have gone into the 4000 range. That's not where you want to be going in procuring a SACWIS is to have an over-scope of requirements because eventually you're just going to have to cut back.

So around 2800 was feasible within a 36 month period of time with our current transfer application.

The - again - okay monitoring in management -- that's okay -- the - there's three different strategies in defining our scope. And when we reviewed vendors in three different capacities, a requirement could have been met by the transfer system. It could have met by a canned off the shelf, or it could be with new development.

Within this transfer system the vendor estimated that approximately 70% of the transfer system would meet our 2800 requirement.

So monitoring and the management of scope, the Michigan change controls that were generated during the duration of our development phase were in two buckets.

The transfer system underestimated our gaps. That 70% that was initially put in our RFP and eventually put within our contract and held that vendor to that contract was underestimated. So really we ended up about 60% of using that transfer system and then 40% was new development.

Also within that period of time -- and I believe Colleen is going to touch on this -- is that there are always, during that period of time because it takes so long to design and develop a system, even if it's a transfer system.

There are new federal policies that create change controls, as well as there is new state policies that they would like to I guess sort of initiate during the phase. So eventually there has to be some sort of freezing of requirements.

So our key strategies for preventing scope creep were really about managing that initial contract with the vendor and holding them to task based on the original set of requirements.

So the contract - utilizing the contract in that initial contract with the vendor in trying to monitor, and having that change control process fluid throughout the 36 months was very important.

Also, you know, business representation and static business representation; having knowledge of those working requirements and knowing and expanding and contracting along the way.

Part of the - I think part of the success of Michigan if you will, is that the business drove the requirements. And this was joint collaboration with our State DTMB, but we - the business owned the requirements from the

beginning. And this became very self-evident in the management and monitoring throughout that 36 month period.

Also one of the things that when we went into the initial procurement or acquisition of the vendor is we looked at what could Michigan do internally safely that we wouldn't - that would not - that we could control the scope as well.

So part of the - what Michigan did is they completed a service level agreement with their own - with our own state IT to complete our data house and report.

One of the key considerations in a modified settlement agreement was Michigan's inability to report any kind of analytics or case monitoring through our SACWIS of our child welfare system.

We had a very robust data warehouse with our CWIS, but were really unable to manufacture any kind of or create any kind of flow of reports, beating from our CWIS system.

So we took the same architecture and our state contractors and put that in an agreement outside of the large vendor contract or our core system contract. And as a result of that we are now sitting at the ability to, within the first day, filling that data repository from our SACWIS upwards of 150 reports.

This saved also money and offered our ability to be flexible in other requirement areas. One of the key guides of ACF in regards to reporting was that they indicated on prior vendor procurements that training would become obsolete or be I guess, removed as a result of budget, and also reporting because reporting though it's key, getting out that first initial SACWIS and rollout, reports sometimes suffer.

So in those areas we decided to kind of secure our budget and our scope create by kind of offsetting that with our own IT.

One of the - I touched on this earlier, one of the issues that arises during the course of development is that over 36 months there are key areas and policy areas that change. Knighted is one that we have incorporated in our system as we're going towards April 30, and this was an issue.

We had to draw a line with our policy folks to try and estimate and freeze a date that we could absolutely not change any more development or offer any more change controls.

This was very hard, but through our governance we were able to control this. But what this allows you to implement on a date, but then it closely behind your implementation, you're exciting your new policy change controls.

So again, freezing that policy and having that rapport with your policy program folks in order to understand the expectations that the new system will change, but there is a point where we have to freeze.

So we were successful in the point that we were able to squeak in Knighted, but we were not able to squeak in some other new policies, and we're going to have to schedule those out for our new capacity model.

This was an area -- control physical space -- this might not seem like a big deal, but being physically on the project, the space is paramount. Part of a vendor's selection process was that they would bid actually to locate and physical space.

This is actually a large billable item within a contract. By us - ACF actually gave us consult on this and said, you know, if you can, procure space separately so that you can really start day 1.

The average vendor was stating that they would take three months to come into the city in Lansing in Michigan and be able to set up shop. That means procure space, get people on. We didn't have three months within our time cycle. And it was actually cheaper for us to co-locate ourselves in a building that was within walking distance of our Policy Program Office and our State DTMB.

What that allowed us to do is we could do rapid requirement sessions concurrently with those physical conference spaces, all located. And then you're also located with your vendor IT staff.

It very much contained the project and allowed folks to physically manage, you know, in a space as well as those - kind of that logistical management of checking out rooms and so forth. So that part of controlling that physical space was really critical for us.

Joyce Rose: All right Laurie, I want to thank you. As you were walking through your processes and your project it certainly brought back a lot of memories. And I wholeheartedly support absolutely everything that you have done in terms of controlling scope and managing scope.

And again, I totally agree with the physical location of everyone who is working on the project. If you're together it just seems to work out a lot easier.

So I thank you, and now I would just like to ask Tom and Susan and Colleen to add any additional comments to what Laurie has presented. What processes has your state implemented to ensure that the project includes all the work required and only the work required to complete the project successfully?

Tom Kine: Well this is Tom here Joyce. One thing that I would say that Laurie touched on is that engaging the stakeholders in the planning process is really important. And often the stakeholders; the business side -- I say that because I come from the technical side naturally -- but don't understand the complexity of what we're building.

And by engaging the stakeholders in the planning process you state to educate them about how much is really needed in order to support any given piece of functionality that they might need. And I think it helps a lot to educate them about the implications of what they're asking for when they ask for a change and what the downstream impact can be on the whole project schedule.

Colleen Mousinho: This is Colleen. I would concur. When it comes to requirement sessions we have to go back and add. We've added multiple requirement sessions. So our state team starts first with making sure that they understand what the policy requirements are and the changes.

So they sit by themselves and they review it. And then they bring in the business owners, the policy unit; the end-users to discuss it again. And then they may have another meeting that includes the vendor as well so that they could get an understanding what's being discussed because they have to program this and design this.

And then we make sure that it's well documented in the statement of work. So those two processes we use here to make sure that the requirements are well

understood up front and that they're clearly document in the statement of work for the vendor so that they can move forward and build what we need them to build.

Joyce Rose: Absolutely. Susan, I know that you're in some form of planning stage for a Pennsylvania SACWIS. Does all this make sense?

Susan Stockwell: It certainly does. And actually we're, for Phase I of our project, our project actually has four phases, and we are just finishing up detailed design of Phase I.

So one of the things that we do here and I'm sure many of the other states do this, is we also have a governance process that includes that change control board. And when we have changes that are requested or we realize we need a change, we have a formal process where we document, review, and prioritize the changes.

And we're currently using a tool called Team Foundation Server which allows you to document that. And once it's documented and prioritized -- initially prioritized -- we have our vendors do an impact analysis.

So we have a vendor that supports us on our business side and then a vendor that supports on our technical side. And they bring that impact analysis back to us. And then we have the technical vendor who would actually be doing the development give us a level of effort which would include the cost of the change if there is any cost to the change.

And then we would bring all that information back to our Change Control Board and make a decision at that point if we could. Now there could be a situation where, you know, if there's an impact cost or schedule that requires a

higher level of discussion with our steering team then we would take it to a steering team where we would have the inclusion of our CIO from our department, as well as our Deputy Secretary for our Program Office who is basically the sponsor of the project.

So that's really what we've been following. And it's actually a cycle that kind of repeats itself every two or three weeks, depending on the urgency of the change.

Joyce Rose: Good. So wonderful additional comments. Laurie I don't know if you have anything that you want to add, given what your colleagues have offered?

Laurie Johnson: I concur with the governance and the Change Control Board. That is absolutely key in operational tactical and the executive level that they all be involved.

And there's a - you know the weekly cadence right now, you know, of a Change Control Board that where exactly what - you know, she indicated. We followed the same rule.

And it really boils down to that ability to control those requirements and those requests and really go to the health of the application and controlling the expectations of the business owners if you will, or the Policy Program Office. Because that really could implode your requirements process because everybody, you know, would agree that a change can be made at a certain time, but do you need it right now and should you pay for it with the vendor. So, thank you.

Joyce Rose: Absolutely. Excellent comment. So let's move on and let's go from our discussion on managing project scope to setting up the context and talking about project scope creep.

And I'm going to turn this over - this segment over to Susan and Colleen and here you go. Thank you.

Colleen Mousinho: So project scope creep, everybody's favorite words. So definition is in front of you on the page. Really its adding functionality that you didn't really agree to or talk about at the beginning of your requirement sessions or as you're defining the work that you want to do.

But I love the quotes here. We just realized we forgot; can we add one more thing; it's not what we need, or that's not what I expected, and I have to confess that in my early days or maybe last year, I have been guilty of uttering these words.

You get in these sign sessions and you realize that you've forgotten something.

Laurie from Michigan talked about 2800 requirements. That's a lot, especially when you're starting a new system to try to remember and manage every piece of the work that you have.

So scope creep happens. We don't like it. We don't want it but, you know, what are some of the causes? Next slide.

So when we start the work and define the scope we need to make sure that we're ready to have that conversation. I think somebody mentioned or will talk about making sure that you're freezing policy.

You've got to make sure. You've got to clearly define what it is that you want to work on. What is it that you want to build? Are you building a breadbox? You know are you building a car? What is the scope of the work? What is the hardware you'll be using; what's the software? What do we want to do?

And then when we get into the requirements analysis, we talked a lot about the end users and making sure that they're involved in the process. And we've got to spend enough time making sure that we're gathering the business requirements.

You know they say haste makes waste, but it also makes unhappy end users because we're not having the in-depth conversation, the width and breadth of the conversation around the business requirements that we need.

And I mentioned earlier that we came to this realization you know, a couple of years ago. So we added some additional steps to our business requirements process where as I said, it started out with our team making sure that we understood what the policies were; what the work was, and then we started having conversations with the end users; multiple conversations making sure that we understood what the requirements were.

And then we would send the document out to them again and get their feedback and make sure that, you know, they're signing off on this is what, you know, the requirements are and we want to build.

The other thing is don't assume, you know, what they need. And this is something also that we've talked about here because the state team is comprised of individuals that have come from the field and have done the work.

But we haven't been in the field in a while so we have to resist the temptation that even though we've been CPS workers or foster care workers we don't always know. We've been out of the field for a while.

So we have to have that input because they are the most recent participants in the work. They understand the nuances better than we do so, you know, don't make any assumptions. Next slide.

Poorly written project requirements - requirements that are open to interpretation are ambiguous leads to poor design and again, unhappy end users.

You have to make sure that the requirements are well discussed. It's a lot of energy and a lot of time that you have to spend on the front end but it's worth it.

And you have to make sure that they're fully documented. I mentioned earlier that we document it, we send it out to the business owners and users, and make sure that they sign off on it; that we haven't missed anything.

And it's also the document that you go back to as you're going through the design to make sure that you're on the same page and that you've gotten what you need.

Laurie mentioned poor project control or lack of change control. Laurie mentioned this earlier. It's really important to have a change control process in place, and that if you have one in place that you're following that process.

You know despite our best efforts at documenting requirements and having those conversations, things come up and things change. You may need to add something and the best way to handle that is through the change control process. You know it's a good check and balance for the team.

There may be funding issues that have come along the way since you started. Priorities have been a change. Events may have occurred that you're not aware of, so that group could help you prioritize some of the things that are coming up that are causing some of the changes or changes that are being asked for.

Understanding the complexity of the project, you have to be realistic about the work effort; about which leads you to ensure that you have the right resources and the right skillset.

You know one of the things you don't want to do is undertake for example, you know, changing your entire intake process and thinking that you can only do it in three months. You're trying to cram too many requirements and too much scope into a short period of time. So you've got to understand how complex your work is at that point.

Not involving users early enough - I think we all understand it but we keep - need to keep saying it because sometimes there's a temptation not to want to do this but you've got to involve the end users very early. They're the ones that are going to be using this or not, if it's not designed to meet their needs.

And again, not assuming that you know what they want or need, make sure that you ask the question many times and document it. You've got to involve them throughout the entire cycle.

Requirements, analysis, design, and I know we're not talking about testing here, but also in the testing phase. We've got to include them through the entire process.

Next, and I think it's Susan.

Susan Stockwell: Yes, thank you Colleen. Continuing kind of the discussion around the stakeholders and making sure that they're involved, I think you can't really emphasize that enough, that they are involved throughout the whole project.

In our project here in Pennsylvania it is the development of a child welfare information solution that is very - it's very new to all of the stakeholders in Pennsylvania that are involved.

We have a large number of stakeholders that have many different roles, and so they're going to look at what they're getting from the system in very different ways.

We're a state - county administered state so we have 67 counties that have an interest in this and will not necessarily be using our system since the way that we're designing this is that we will be data exchanges with the counties.

And then we have state workers. We are currently redoing our Child Abuse Hotline, and the system that helps support the processing of child abuse clearances here in Pennsylvania. And so we have - we're building pieces that have to actually communicate with each other, and we've been engaging our stakeholders from different perspectives.

We're establishing a self-service portal where we will actually have - the public will be able to access that to obtain child abuse clearances. So their

perspectives and their needs are going to be very different from the needs of the child line workers who are answering the hotline and taking reports.

And so our public users doing clearances, we actually do about half a million clearances a year. And then we're also allowing our mandated reporters to access this self-service portal to make reports of suspected child abuse. And there's about 21,000 reports that come in a year from mandated reporters.

And currently what they have to do is do those orally to our hotline workers and they'll be able to now do them electronically.

So it was - there's a lot of balancing that's going on, trying to look at all the different user's needs and making sure that some of those needs aren't contradicting each other.

The other thing I would suggest in terms of gathering your requirements prematurely or not finalizing your policy that can cause a lot of problems too.

So one of the things I would recommend is doing similar to what Colleen was saying, is really onboarding your processes; your business processes as well as the processes then that you're going to use for managing your project to your subject matter experts as well as any of your business analysts that would not be familiar with it.

They need to have an understanding of what the project is trying to achieve and what the vision of the project is, and the end product is so that everybody is talking about the same requirements and achieving the same goals.

I also would recommend some level of business process - reengineering prior to jumping into requirements for any business areas that do not have well documented or defined business processes.

And an example of this is we have four regional offices here at the state which are state - they're state employees and they oversee the agencies. But they have some of their own functions as well.

And it became very obvious since they had no automated system, that they were all doing their business processes differently. So they all had to do the same thing but none of them did it the same way.

And so by not kind of preparing them ahead of time we ended up being in the requirement sessions and trying to figure this out. So we had to step back and actually look at how they could start agreeing on what their business processes should be in order for us to automate them.

Okay, here I guess I would just want to make sure that your stakeholders also understand throughout the requirement sessions and the design sessions, what decisions have already been made because you do get into the situations then throughout the whole process where stakeholders are arguing over what functionality should be in or what was agreed upon prior.

And if not all of the stakeholders can be in all of those requirement sessions and design sessions which it's impossible to have that happen in a large project, then some of them don't necessarily understand why decisions have been made. And then what happens is you have to revisit those things, and that takes time.

Gold plating - the practice of exceeding the scope of the project in the belief it is adding value. Here we really - we again go back to our change control process and looking at if somebody is coming up with a new requirement or a change requirement, really assessing the value of that requirement, you know, what does that add to the end product?

We've had a lot of occurrences where some of the subject matter experts have brought things up that they think the system should do, but they're really only - they're like one-off things that only happen five times a year.

And so you have to have that discussion and let them talk about that, but have a discussion around what kind of value does that really bring, and is it worthy building that into an automated system.

As far as the developers adding new features, we haven't really run in to that here as far as them adding new functionality. I think my comment on that is what we've experienced is that they come up with design ideas or decisions which tend to kind of change the scope or maybe affect the scope in a way.

And their decisions are based on technical or design decisions, not necessarily business driven decisions. And I guess an example of this is we have - you know we have a lot of enterprise systems. And if we want to reuse one of those systems or build pieces of our system into that framework then there are constraints around that.

And there might be a decision made that we have to do something a certain way which then has us going back and thinking about well then that's going to change really how we're doing our business. So that's kind of what we've experienced from the vendor perspective.

Okay next, establishing the context. Not all project scope creep can be avoided, and I think that's definitely true. There is unavoidable scope creep.

We have had here in Pennsylvania some major legislative changes. And just kind of to put this in context, we started Phase I of our project in March 2013 with our business requirements. And we had done high level business requirements, you know, before in order to get our procurement, but we went back and revalidated some of those requirements because here in Pennsylvania too, it's - procurement is like a two year process.

And so now we are in finalizing our design and we will go into production in December of 2014. So a couple of years ago we had a major event occur here in Pennsylvania with the Sandusky crisis, and we had a task force on child protection that was established to actually look at our Child Protective Services law.

So while we were in the process of doing the business requirements there was a whole lot of legislation introduced. And basically it's almost an entire rewrite of our Child Protective Services law, and those bills were actually only passed in late 2013 and early 2014.

So most of them only actually were passed while we were in GSD. So we were dealing with changing requirements and changing policy all throughout this project. And because we stayed very much involved with the legislation and that whole process, we were able to build some of that into our requirements. However it was very difficult to finalize anything because until a bill is passed as you know, there could be many changes.

And then in addition to that like I said, we here at the Department, from a cost savings I guess perspective or a more centralization of your IT services, they like to make use of what they call the enterprise systems or services.

And so when you have multiple program offices using the same system there's often other activity going on which affects - you know, could affect your timelines. And you're often - it's difficult to keep yourself abreast of all the other activities that are going on so, that has been a challenge as well.

And so now I will hand it over to Tom.

Tom Kine: Okay, could we have the next slide please? I'm just struck by listening at all of this, how difficult that it really is and how complex the issues that we have around scope and around defining what a system needs to do.

And for me some of this comes down to, you know, in the words of Pogo, "We've met the enemy and he is us." Because I do think that some of the problems that we're dealing with here are related to the methodologies that we use in software development, i.e., Waterfall versus Agile.

And it's particularly difficult to address this when you're engaging with a vendor or prime contractor who needs a definition up front of what's going to happen on a project in order to make a bid on it.

In Minnesota in the development of its SACWIS took a different approach to development in that we did not engage with a prime contractor and managed the project in-house.

We used contracted resources throughout the project and still do from time to time but in a staff augmentation sort of way. So that has some impact on my perspective on it.

But we certainly started initially with Waterfall. And you know my observations on Waterfall are you're really trying to boil the ocean. And particularly at the front end of a project where the users don't have a relationship with you to begin with, there's a tendency on the part of the end users wanting to jam in every feature and requirement they can.

And you know I think in the user's defense they're convinced that they're only going to get one shot with IT and need to get everything in up front. And there's some truth to that with some of these projects.

You know and I think we need to consider the methodology that we use and plan for change over the development cycle of the project rather than - you know, rather than be surprised by it.

The other thing that happens with trying to define everything up front is you're trying to anticipate what's basically unknowable. And with all of this - and I was struck by Susan's remark about the - doing the business process reengineering part of the requirement, I think that's very valid.

But the act of introducing a new system is injecting change into an existing system. And I think the very fact that we're doing that implies that the requirements do change because we're - because of the change we're introducing, it's hard to predict what the outcome of that's going to be.

So it's hard for the users to anticipate what the requirements are going to be until they see something. So, all this is hard - really hard. Could I have the next slide please?

So this slide and the next one which looks similar I borrowed from IBM and I'm using it with their permission. But I'm engaged on a short project using IBM as a resource to implement some enterprise service bus technology in our area.

And IBM is coming in and engaging with IT here in Minnesota, but also going to be primarily engaging with the business users in order to do this project.

And so while the primary goal is to implement an enterprise service bus and get it up and running and do some knowledge transfer to the state IT people, it's important in the course of the project for it to be successful, to deliver a piece of functionality that is of significant benefit to the business.

And so IBM is talking about, how do we do that. And part of that conversation was the traditional software development lifecycle, waterfall versus iterative.

And here what they're showing is that at project initiation you're trying to define the outcome that you're going to get quite some time down the road. And you're likely going to fall short of that desired outcome. And it's a very complicated process to do this; to nail down all the requirements up front and to really get the level of definition that you need to do that.

And I think it really does involve everything that's been talked about in regard to managing scope and careful change control, etcetera. It's a daunting process. Could I have the next slide please?

With agile then, we're dealing with shorter development cycles. We're trying to deliver incremental functionality with continuous enhancement improvement. We're trying to start smaller and gradually build out the functionality.

And the most important thing for me as I'm trying to develop a long-term partnership with my business users so that there's trust here that if I'm not delivering a piece of functionality in this iteration, there's another iteration coming where I am going to deliver that functionality.

And that's the key I think, to managing some of this is that the users - you have a trust relationship with your users that you are going to deliver and that you - it is long-term. It's not just a short-term one project kind of thing.

And again, I think that is particularly difficult when you're trying to manage a vendor as well.

I am engaged with another area of the agency outside of Child Welfare where we are engaging with the vendor. And in the statement of work for that which is kind of an abbreviated version of an RFP we're trying to address the needs of agile development, and our desire to use agile development on that project.

So for instance in that RFP or statement of work, we're asking for the vendors to show experience having worked on agile projects. We're asking for education or certification of Scrum Masters which is one of the roles on an agile project, etcetera.

So we're trying to bake into the request for proposals the qualifications a vendor would need to have in order to work successfully in Agile. And we're taking the approach on that to try to define the deliverables that we want that will still allow the flexibility of fleshing those out during Agile iterations, and it is certainly balancing act to do that. It takes a lot of judgment and again, it's not easy. Could I have the next slide please?

And now I've lost some of it. Is there another piece to this? Yes, just bring it all. Okay, right there.

So what's being shown here then is incremental iterations as opposed to the waterfall that get us the pretty much same outcome, but we're taking it a bite at a time.

And in agile it's kind of hard to have scope creep, because by definition what you're doing is you're delivering a small piece of functionality. You're implementing some working code and then you're taking a look at what is the next piece of functionality that needs to be required.

So of course you need to - you know you need to set an overall scope. It can't just go anywhere and set parameters to work within. But the intent here is that change is a natural part of the process and we accommodate that throughout the lifecycle.

The other thing I find with agile which we use here on our project to manage on an ongoing basis is, it kind of turns things on its head in regard to change. And we try to accommodate the change up front as opposed to managing it through change control at the end.

So we have an idea of what the development capacity is at the front end of the iteration. And we force the business or the process owner to make decisions at the front of the iteration as far as what they want.

And because these are short iterations, the matter of a month or so, we don't introduce new requirements in the middle of that month. And so we're delivering that functionality as we go. And if there are changes that are needed due to changes in policy or changes in understanding based on the system we're delivering, if those are occurring they're going to be accommodated in a future iteration. So it kind of leaves room for the unknown.

Another general observation on all of this is to the extent that you can keep flexibility in your designs that preserve options, you're going to have a system that can better adapt to change.

One of the examples of that to be a little less abstract is in the system that we have here, we have grids with a lot - with a great deal of functionality in them. So within a grid in our application that presents data, the user can select to include or exclude different fields.

The grids can be sorted in different ways. The data can be exported to Excel or for further analysis or graphing. And so with that kind of flexibility we reduce the need for defined reports up front.

And trying to take that sort of approach throughout the project or throughout the design process to look for where can you be flexible; where can you provide more options, I think it also helps reduce scope creep because you're more easily able to accommodate needs without necessarily making a system change.

And the other thing with Agile is that the users quickly come to understand is when they come to us and want to add something during an iteration we say that's fine; what do you want to take out.

So we're working within a fixed amount of capacity. We're working on a relatively fast schedule. And so if you're asking for more you've got to ask for less somewhere else. We're simply not able to - we don't have infinite capacity here.

And I think Joyce I'm going to stop there. There's certainly more to say but, that seems reasonable.

Joyce Rose: All right, thank you. Tom I, while listening to your spiel on Agile, I have a question and I hope I'm not putting you on the spot but, here goes.

It seems as though one of the philosophies of agile is that it welcomes changing requirements, even late in the development cycle. And given that most -- in fact I think all that I know of -- SACWIS projects are fixed price, do you think that agile can adapt to a fixed price environment?

Tom Kine: We're - I'm about to find out on this other project I was talking about. So in that RFP we're specifying features that we want at a reasonable level of detail, but the contract is to develop the functional requirements needed to deliver those features and then do the development of them.

So it is Joyce; it's really a balance in here to try to set an overall broad scope but leave enough room for an agile project process to get there.

And I do think it's difficult, but I think our traditional ways are also difficult, and I'm hoping with this vendor engagement that we can have the same kind

of success that we've had with internal staff. Ask me in about six months and I'll have a better answer for you.

Joyce Rose: I think we'll all be waiting for the results of your efforts because I think we'll be touching on Agile and Waterfall and other development methodologies at perhaps some later Webinar.

So Elizabeth, let's move on to the next slide please. Okay, very quickly, so that we save ample time for attendee questions: Do any of the panelist or presenters want to add anything in terms of your development methodology and the scope that it's had on your project?

Do you think all scope creep is negative? I invite your comments. I do want to let you know that Laurie Johnson has had to step out for a minute. As you know they're going live very soon. They are shutting down their old payment system this week so she had some things that she needed to attend to.

So Tom, Colleen; Susan, is there anything that you would like to add or comment on?

Tom Kine: Well this is Tom. You know as far as whether all scope creep is negative, I don't - personally I don't think so. I think it's understandable. At the design phase and the current definition of phase, things are quite abstract. I think it's hard for people to understand at that phase what it is exactly that you're going to be delivering.

And when they actually see the deliverable and say oh, my gosh, that isn't what I meant, I think it's understandable.

So although it can have a negative impact on the project schedule, in the end changes in scope, you know, are often needed in order to have a successful project. So I would say to that one, I don't believe it is all negative.

Joyce Rose: And I think we all would agree. Colleen, Susan any additional comments you'd like to make?

Colleen Mousinho: Just one lessons learned in terms of involving end users, I think we all realize how critical it is to involve them. And you know in respect - to respect their time, you know, we attempted to do things using technology and using Webinars and WebEx to make sure that, you know, that we were being inclusive.

However we found out that that really doesn't work for us. In terms of scope creep what we found out was that, you know, the end users were coming back to us saying I missed something, I didn't add this requirement, you know, I didn't hear that point, I didn't add this.

So, you know, it added to our issues around scope creep because we were attempting to use the latest technology to accommodate, you know, their schedules and their locations and their time. So, you know, that was an interesting finding for us.

Joyce Rose: Good comments Colleen. Susan, anything you want to add or shall we move on to our questions from our attendees?

Susan Stockwell: I think you can move on. It would be nice to know if there are questions.

Joyce Rose: All right. Okay Elizabeth, I'm going to turn this over to you to open - ask for the phone lines to open up. And if we have any questions submitted through the Chat feature.

Elizabeth Mertinko: Okay. Camilla is our operator. And Camilla, can you go ahead and give our audience instructions on how to line up for questions on the phone?

Coordinator: Yes. At this time we'll begin the question and answer session. To ask a question you may press star 1 on your touchtone phone. Please unmute your phone and record your first and last name clearly when prompted.

To withdraw your request press star 2. Once again if you would like to ask a question press star then 1 and record your name. And one moment please for our first question.

Elizabeth Mertinko: Okay, and while we're waiting we do have a few questions from the Chat line. First, have any of the states had the experience that as you go through requirements you actually discard them because participants say we don't need this?

Tom Kine: Tom here from Minnesota. Yes, certainly. I think primarily where I see that is in regards to the business process reengineering.

So we'll start off thinking we're going to do one task and then as we get deeper into the business process reengineering we realize that it's really something else altogether that's going to cause the issue or that is causing the issue.

Colleen Mousinho: Yes this is Colleen. The same thing. I think what it is, is the business, as you start talking, they're bringing their work on paper and, you know, initially the requirement is based around that paper process.

And as you start getting into design and they're seeing how the system can automate some of the work, they realize I really don't need the signature or this approval or to do this work the way that I'm doing it on paper so, we discard the requirement.

Susan Stockwell: Yes this is Sue and I would also agree because I think, especially in our state, we have used our legacy applications for so long that there were many workarounds that had to be put in place.

And so the way they were doing it may not have really been the way that it should have been done. And once they realized that then they may not need a certain requirement.

Elizabeth Mertinko: Okay, any other responses? Second question from on line, I'd be curious about whether the speakers think the pace of the agile process will make it difficult to maintain documentation and to engage in traditional change control processes?

Tom Kine: Tom here. So for us we're most successful with this when we're engaged in the process. We have business users, business analysts, and developers, and the analysts are creating the documentation as we go.

If we don't do that, then we do get into trouble with it and no one is happy. And that is something that gets managed in agile is how do you get the documentation that you need.

So we include people during the process who are creating the documentation as we're going along.

Elizabeth Mertinko: Any other responses? Okay Camilla, do we have any questions on the phone?

Coordinator: There are no questions on the phone line.

Elizabeth Mertinko: Another one on line; what have you seen as the most negative aspect of scope creep? Impact on time schedule or on the cost of the project?

Tom Kine: Tom from Minnesota here. I think the time is the huge factor. The other thing that happens with scope creep in my experience is it can drive quality down because you're trying - you're pushing more features into a product. It's difficult to get a handle around the quality control that needs to happen.

And often a late project is made later as you're pushing more features into it and it sort of snowballs. So I think time and quality, and of course, that will impact cost.

Colleen Mousinho: This is Colleen. For me it's hard to separate, but for me I think schedules. You have expectations from the field of things being delivered and they're waiting for certain functionality to come and, you know, it's taking longer.

The staff or your team you know, they're getting a little frustrated because the schedule keeps slipping. So I think for me the schedule has the most negative impact.

Susan Stockwell: And this is Sue. I think in most circumstances I would agree with Colleen, it would be the schedule. I think for us in this phase of our project, because all

of our - I mean our deadline is basically written in legislation so we can't really extend, it's probably going to be cost for this phase.

Elizabeth Mertinko: Thanks.

Joyce Rose: Elizabeth - go ahead. I think we should probably take maybe one more question if we have one.

Elizabeth Mertinko: Okay, I don't have any on line. (Camilla), do we have any on the phone?

Coordinator: No questions at this time.

Elizabeth Mertinko: Okay, Joyce I'll turn it back over to you then.

Joyce Rose: Yes, I want to thank our presenters because I think that as I said, they have been doing this for many years and they have a lot of wisdom to impart. And they have done an excellent job of it and I wish them all well in continuing their success.

And I wish to Laurie Johnson in Michigan, wonderful success in going live with their brand new SACWIS system on the 30th.

So in terms of what's next, there was a previous slide of our next Webinar which is going to be, Saying Goodbye to Your Vendor - Preparing to Say Goodbye to Your Vendor, which I think will be quite interesting.

So we hope that all of you who have attended have found the information to be both informative and valuable as you move forward with your own SACWIS or CWIS initiative.

If you have any additional questions or would like more information from any of the presenters, please do not hesitate to contact me at the email listed above.

Again, this Webinar has been recorded and will be made available on line. When it's complete and posted we will send you a message via the SACWIS Manager's Listserv with the link to the recording.

So thank you all for attending and please watch for information for the next Children's Bureau sponsored Webinar event. With that I wish you well and say goodbye. Thank you.

Coordinator: This concludes today's conference. You may disconnect at this time.

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